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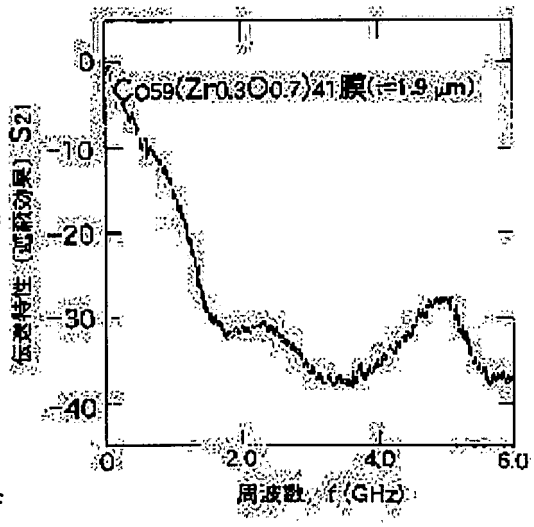
(54) ELECTROMAGNETIC WAVE ABSORBING FILM

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a electromagnetic wave absorbing film which is formed of nano-granular soft magnetic film that is large in electric resistivity, saturation magnetization, and anisotropic magnetic field, and has a large absorbing characteristic of electromagnetic wave in the GHz band.
SOLUTION: This electromagnetic wave absorbing film is formed of nano- granular soft magnetic film, which is represented by a general expression, M100-XIX (M is highly densely distributed ferromagnetic fine grains that are made of either of Co and Ni or more than two kinds of elements and have a particle size of 10 nm or less, and I is a grain boundary substance made of insulator such as an oxide, nitride, or fluoride, etc., surrounding the ferromagnetic fine grains of M, and an atomic ratio X of I is 10<X<50), and which has a saturation magnetization of 6 kG or higher, anisotropic magnetic field of 30 Oe or more, and electric resistivity of 150 μΩcm or more and has a value of the imaginary part of the complex permeability of 30 or more in the GHz band.



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